AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) At a computer system that is network connectable to a messaging server, the computer system configured to provide user access to data stored at the messaging server, a method for requesting data that provides an improved user experience when the messaging server is experiencing increased load, the method comprising:

an act of computer system sending a data request to the messaging server, the data request requesting that message related data for a user of the computer system be returned from the messaging server to the computer system;

an act of receiving a buffer from the messaging server, the buffer ~~server response~~ responsive to the data request from the messaging server, the buffer having plurality of data fields, including a error code field and a response data field, the error code field containing a server busy error code, the server busy error code indicating that the messaging server did not process the data request, the response data field containing ~~the server response including~~ an adaptively generated wait hint generated at the messaging server, the adaptively generated wait hint being an indication that the messaging server was unable to process the data request and indicating that the computer system is to wait a specified wait time before re-sending ~~another~~ the data request ~~requesting the message related data for the user~~, the adaptively generated wait hint generated by a wait hint generation algorithm at the messaging server, the wait hint generation algorithm configured to:

adaptively generate a wait hint each time the data request ~~requesting message related data for the user~~ is received at the messaging server but not processed, each wait hint generated by the messaging server based on the message server tracking how many times the data request was previously received at the messaging server but not processed, up to a specified number of times ~~next~~ the messaging server detects that the data request is received at the messaging server but not processed at the messaging server, after which the messaging server

processes the data request to return the message related data ~~for the user~~ in response to the data request such that the message server controls when delayed data requests are eventually processed even when the messaging server is busy;

an act of waiting the specified wait time before resending the data request requesting message related data for the user to thereby reduce the load on the messaging server; and

an act of resending the data request ~~requesting message related data for the user~~ subsequent to waiting the specified wait time.

2. (Original) The method as recited in claim 1, wherein the act of sending a data request to the messaging server comprises an act of sending a synchronization request.

3. (Original) The method as recited in claim 1, wherein the act of sending a data request to the messaging server comprises an act of issuing an RPC call.

4. (Currently Amended) The method as recited in claim 1, wherein the act of receiving a ~~server response~~ buffer including an adaptively generated wait hint comprises an act of receiving ~~a~~ the buffer from the messaging server in response to an RPC call.

5. (Currently Amended) The method as recited in claim 4, wherein the act of receiving ~~a~~ the buffer from the messaging server in response to an RPC call comprises an act of receiving a buffer that ~~includes an error code and a corresponding~~ contains the wait hint~~, the error code indicating that the server was busy~~ in a variable length operation specific response data portion of the buffer.

6. (Previously Presented) The method as recited in claim 1, further comprising:

an act of the computer system randomizing the specified wait time included in the adaptively generated wait hint received from the server to reduce the chances of resending the next request requesting message related data for the user at the same time as one or more other different computer systems that also received the adaptively generated wait hint in response to requesting data from the messaging server; and

wherein the act of waiting the specified wait time before resending the data request requesting message related data for the user comprises the act of waiting the randomized specified wait time before resending the data request; and wherein the act of resending the data request requesting message related data for the user subsequent to waiting the specified wait time comprises an act of resending the data request subsequent to waiting randomized specified wait time

7. (Previously Presented) The method as recited in claim 1, wherein the act of waiting a specified wait time in accordance with the adaptively generated wait hint comprises an act of utilizing the wait hint at a client side module that attempts to improve user experience when interacting with the messaging server.

8. (Original) The method as recited in claim 1, wherein the act of resending the data request subsequent to waiting the specified time comprises reissuing an RPC call that was originally issued to send the data request.

9. (Original) The method as recited in claim 1, further comprising:

an act of receiving a synchronization command from a user.

10. (Currently Amended) The method as recited in claim 1, further comprising:

an act of receiving a second ~~server response~~ buffer, the second buffer including the error code field and the response data field, the error code field containing the server busy error code and the response data field containing ~~including~~ a second adaptively generated wait hint subsequent to resending the data request after the specified wait time, the second adaptively generated wait hint being an indication that the messaging server was unable to process the resent data request ~~requesting message related data for the user~~, the second adaptively generated wait hint having a second different indicated wait time differing from the indicated wait time;

an act of waiting a second specified wait time before again resending the data request to thereby reduce the load on the messaging server, the second specified wait time based on the second different indicated wait time; and

an act of again resending the data request subsequent to waiting the second specified wait time.

11. (Previously Presented) The method as recited in claim 1, further comprising:

an act of receiving message related data for the user subsequent to resending the data request; and

an act of updating a message interface to reflect that the message related data was received.

12. (Previously Presented) The method as recited in claim 1, further comprising:

an act of causing a message interface at the computer system to indicate that the data request is being processed so as to not give the user an impression that the messaging server was to busy to process the data request, even though the messaging server returned an adaptive wait hint in response to the data request.

Claim 13. (Cancelled).

14. (Currently Amended) At a computer system that is network connectable to a plurality of different clients, the computer system configured to process client data requests for user messaging data maintained at the computer system and return appropriate user messaging data to corresponding requesting clients, a method for regulating client requests so as to provide an improved user experience when the messaging server is experiencing increased load, the method comprising:

an act of receiving a client data request from a client, the client data request requesting that message related data for a user of the client be returned to the client;

an act of determining that the computer system is unable to process the client data request based on the current load of computer system, the current load indicative of resource consumption at the computer system as a result of the computer system sending message related data to other clients from among the plurality of different clients, the determination made subsequent to receiving the client data request;

an act of adaptively generating a wait hint for return to the client, the adaptively generated wait hint including an indicated wait time, the wait time indicating an amount of time to the client that the client is to wait before resending the client data request ~~requesting message related data for the user to the computer system~~ to thereby reduce the load at the computer system, the adaptively generated wait hint generated by a wait hint generation algorithm, the wait hint generation algorithm configured to:

adaptively generate a wait hint each time the client data request ~~requesting message related data for the user~~ is received at the messaging server but not processed based on the messaging server tracking how many times the client data request was previously received but not processed, up to a specified number of times the messaging server detects that the data request is received at the message but not processed at the messaging server, after which the messaging server processes the client data request to return the message related data in response to the client data request such that the message server controls when delayed client data requests are eventually processed even when the messaging server is busy~~is to be processed~~; and

an act of sending a buffer to the client, the buffer responsive to the client data request, the buffer having a plurality of data fields including an error code field and a

response data field, the error code field containing a server busy error code, the server busy error coding indicating that the messaging server did not process the client data request, the response data field containing ~~server response that includes~~ the adaptively generated wait hint, the adaptively generated wait hint indicating to the client ~~to indicate to the client~~ to wait the indicated wait time before resending the client data request ~~requesting message related data for the user~~.

15. (Original) The method as recited in claim 14, wherein the act of receiving a client data request from a client comprises an act of receiving a synchronization request.

16. (Original) The method as recited in claim 14, wherein the act of receiving a client data request from a client comprises an act of receiving an RPC call.

17. (Original) The method as recited in claim 14, wherein the act of determining that the computer system is unable to process the client data request comprises an act of determining that the computer system lacks the resources to process the client data request in parallel with other requests that are being processed.

18. (Original) The method as recited in claim 14, wherein the act of determining that the computer system is unable to process the client data request comprises an act of determining that the computer system is already processing a configured maximum number of requests that can be processed in parallel.

19. (Previously Presented) The method as recited in claim 14, wherein the act of adaptively generating a wait hint comprises an act of varying the indicated wait time between successive adaptively generated wait hints in accordance with the wait hint generation algorithm.

20. (Previously Presented) The method as recited in claim 19, wherein the act of varying the indicated wait time between successive adaptively generating wait hints in accordance with the wait hint generation algorithm comprises an act of increasing the indicated wait time for each successive wait hint corresponding to the same data request.

21. (Previously Presented) The method as recited in claim 19, wherein the act of adaptively generating a wait hint comprises an act of generating a wait hint in accordance with a wait hint generation algorithm that accesses external configurable parameter values.

22. (Original) The method as recited in claim 14, wherein the act of adaptively generating a wait hint comprises an act of generating a wait hint for a data request based on the connection speed of the client that sent the data request.

23. (Currently Amended) The method as recited in claim 14, wherein the act of sending a ~~server response~~ buffer that ~~includes~~ contains the adaptively generated wait hint to the client comprises an act of sending a buffer to the client in response to an RPC call.

24. (Currently Amended) The method as recited in claim 23, wherein the act of sending ~~a~~ the buffer to the client in response to an RPC call comprises an act of sending a buffer ~~that includes an error code and a corresponding~~ that contains the wait hint~~, the error code indicating that the server was busy~~ in a variable length operation specific response data portion of the buffer.

25. (Previously Presented) The method as recited in claim 14, further comprising:

an act of receiving a resent client data request from the client, the resent client data request requesting the same data as the client request;

an act of determining that the computer system is again unable to process the resent client data request, subsequent to receiving the resent client data request;

an act of adaptively generating a second wait hint, the adaptively generated second wait hint including a second indicated wait time indicating a second amount of time the client is to wait before again resending the resent client data request to thereby reduce the load at the computer system, the seconding indicated wait time differing from the indicated wait time in accordance with the configuration of the wait hint generation algorithm; and

an act of sending a second ~~server response~~ buffer to the client, the second buffer including the error code field and the response data field, the error code field containing the server busy error code and the response data field containing ~~that includes~~ the adaptively generated second wait hint ~~to the client~~.

26. (Currently Amended) A computer program product for use at a computer system that is network connectable to a messaging server, the computer system configured to provide user access to data stored at the messaging server, the computer program product for implementing a method for requesting data that provides an improved user experience when the messaging server is experiencing increased load, the computer program product comprising one or more computer storage media having stored thereon computer-executable instructions that, when executed by a processor, cause the computer system to perform the following:

send a data request to the messaging server, the data request requesting that message related data for a used of the computer system be returned from the messaging server to the computer system;

receive data responsive to the data request in a Remote Procedure Call (RPC) response buffer from the messaging server, the RPC response buffer having a plurality of data fields, including an error code field and a response data field, the error code field containing a server busy error code, the server busy error code indicating that the messaging server did not process the data request, the response data field containing an adaptively generated wait hint, the response data field included in a variable length operation specific response data portion of the RPC response buffer, ~~server response responsive to the data request from the messaging server, the server response including an adaptively generated wait hint,~~ the adaptively generated wait hint generated at the messaging server, the adaptively generated wait hint being an indication that the messaging server was unable to process the data request and indicating that the computer system is to wait a specified wait time before sending another data request requesting the message related data for the user, the adaptively generated wait hint generated by a wait hint generation algorithm at the server, the wait hint generation algorithm configured to:

refer to external configuration data to adaptively generate a wait hint each time the data request ~~requesting message related data for the user~~ is received at the messaging server but not processed, each wait hint generated by the messaging server based on the message server tracking how many times the data request was previously received at the messaging server but not processed, up to a specified number times the messaging server detects that the data request is received at the messaging server but not processed at the messaging server, after

which the messaging server processes the data request ~~is processed at the messaging server~~ to return message related data ~~for the user~~ in response to the data request such that the message server controls when data requests are processed even when the messaging server is busy, the specified number of times being stored in the external configuration data;

wait the specified wait time before resending the data request requesting message related data for the user to thereby reduce the load on the messaging server; and

resend the data request ~~requesting message related data for the user~~ subsequent to waiting the specified wait time.

27. (Currently Amended) A computer program product for use at a computer system that is network connectable to a plurality of clients, the computer system configured to process client data requests for data maintained at the computer system and return appropriate data to corresponding requesting clients, the computer program product for implementing a method for regulating client requests so as to provide an improved user experience when the messaging server is experiencing increased load, the computer program product comprising one or more computer storage media having stored thereon computer-executable instructions that, when executed by a processor, cause the computer system to perform the following:

receive a client data request from a client, the client data request requesting that message related data for a user of the client be returned to the client;

determine that the computer system is unable to process the client data request, subsequent to receiving the client data request based on the current load of computer system, the current load indicative of resource consumption at the computer system as a result of the computer system sending message related data to other clients from among the plurality of different clients, the determination made subsequent to receiving the client data request;

adaptively generate a wait hint for return to the client, the adaptively generated wait hint including an indicated wait time, the wait time indicating an amount of time that to the client that the client is to wait before resending the client data request ~~requesting message related data for the user~~ to thereby reduce the load at the computer system, the adaptively generated wait hint generated by a wait hint generation algorithm, the wait hint generation algorithm configured to:

refer to external configuration data to adaptively generate a wait hint each time the client data request ~~requesting message related data for the user~~ is received at the messaging server but not processed at the messaging server based on the messaging server tracking how many times the client data request was previously received but not processed, up to a specified number of times the messaging server detects that the client data request is received at the messaging server but not processed at the messaging server, after which the messaging server processes the client data request to return the message related data in response to the client data request such that the message server controls when delayed client

data requests are eventually processed even when the messaging server is busy~~is to be processed~~, the specified number of times being stored in the external configuration data; and

send data responsive to the client data request in a Remote Procedure Call (RPC) response buffer to the client, the RPC response buffer having a plurality of data fields, including an error code field and a response data field, the error code field containing a server busy error code, the server busy error code indicating that the messaging server did not process the client data request, the response data field containing ~~server response that includes~~ the adaptively generated wait hint, the response data field included in a variable length operation specific response data portion of the RPC response buffer, the adaptively generated wait hint indicating to the client ~~to indicate to the client~~ to wait the indicated wait time before resending the client data request ~~requesting the message related data for the user~~.

28. (Currently Amended) The method as recited in claim 1, wherein receiving a server response including an adaptively generated wait hint comprises an act of receiving an adaptively generated wait hint having an indicated wait time differing from the indicated wait hint time the wait hint generation algorithm is configured to generate for other attempts, in the plurality of attempts, to ~~send the data~~ request the user data, the differing wait time read from a wait interval configuration file.